

shall minimize disturbances to the hydrologic balance by preserving throughout the mining and reclamation process the essential hydrologic functions of an alluvial valley floor not within the permit area.

(b) The operator of a surface coal mining and reclamation operation shall minimize disturbances to the hydrologic balance within the permit area by reestablishing throughout the mining and reclamation process the essential hydrologic functions of alluvial valley floors.

**§ 822.12 Protection of agricultural activities.**

(a) *Prohibitions.* Surface coal mining and reclamation operations shall not: (1) Interrupt, discontinue, or preclude farming on alluvial valley floors; or (2) cause material damage to the quantity or quality of water in surface or underground water systems that supply alluvial valley floors.

(b) *Statutory exclusions.* The prohibitions of paragraph (a) of this section shall not apply—

(1) Where the premining land use of an alluvial valley floor is undeveloped rangeland which is not significant to farming;

(2) Where farming on the alluvial valley floor that would be affected by the surface coal mining operation is of such small acreage as to be of negligible impact on the farm's agricultural production;

(3) To any surface coal mining and reclamation operation that, in the year preceding August 3, 1977—

(i) Produced coal in commercial quantities and was located within or adjacent to an alluvial valley floor; or

(ii) Obtained specific permit approval by the State regulatory authority to conduct surface coal mining and reclamation operations within an alluvial valley floor; or

(4) To any land that is the subject of an application for renewal or revision of a permit issued pursuant to the Act which is an extension of the original permit, insofar as: (i) The land was previously identified in a reclamation plan submitted under either part 780 or 784 of this chapter, and (ii) the original permit area was excluded from the pro-

tection of paragraph (a) of this section for a reason set forth in paragraph (b)(3) of this section.

**§ 822.13 Monitoring.**

(a) A monitoring system shall be installed, maintained, and operated by the permittee on all alluvial valley floors during surface coal mining and reclamation operations and continued until all bonds are released in accordance with Subchapter J of this chapter. The monitoring system shall provide sufficient information to allow the regulatory authority to determine that—

(1) The essential hydrologic functions of alluvial valley floors are being preserved outside the permit area or reestablished within the permit area throughout the mining and reclamation process in accordance with § 822.11;

(2) Farming on lands protected under § 822.12 is not being interrupted, discontinued, or precluded; and

(3) The operation is not causing material damage to the quantity or quality of water in the surface or underground systems that supply alluvial valley floors protected under § 822.12.

(b) Monitoring shall be conducted at adequate frequencies to indicate long-term trends that could affect compliance with §§ 822.11 and 822.12.

(c) All monitoring data collected and analyses thereof shall routinely be made available to the regulatory authority.

**PART 823—SPECIAL PERMANENT PROGRAM PERFORMANCE STANDARDS—OPERATIONS ON PRIME FARMLAND**

**Sec.**

823.1 Scope and purpose.

823.4 Responsibilities.

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823.14 Soil replacement.

823.15 Revegetation and restoration of soil productivity.

**AUTHORITY:** Pub. L. 95-87, 30 U.S.C. 1201 *et seq.*; Pub. L. 100-34.

**SOURCE:** 48 FR 21463, May 12, 1983, unless otherwise noted.

**§ 823.1 Scope and purpose.**

This part sets forth special environmental protection performance, reclamation, and design standards for surface coal mining and reclamation operations on prime farmland.

**§ 823.4 Responsibilities.**

(a) The U.S. Soil Conservation Service within each State shall establish specifications for prime farmland soil removal, storage, replacement, and reconstruction.

(b) The regulatory authority within each State shall use the soil-reconstruction specifications of paragraph (a) of this section to carry out its responsibilities under § 785.17 and subchapter J of this chapter.

**§ 823.11 Applicability.**

The requirements of this part shall not apply to—

(a) Coal preparation plants, support facilities, and roads of surface and underground mines that are actively used over extended periods of time and where such uses affect a minimal amount of land. Such uses shall meet the requirements of part 816 of this chapter for surface mining activities and of part 817 of this chapter for underground mining activities;

(b) Disposal areas containing coal mine waste resulting from underground mines that is not technologically and economically feasible to store in underground mines or on non-prime farmland. The operator shall minimize the area of prime farmland used for such purposes.

(c) Prime farmland that has been excluded in accordance with § 785.17(a) of this chapter.

[48 FR 21463, May 12, 1983, as amended at 53 FR 40839, Oct. 18, 1988]

EFFECTIVE DATE NOTE: For a document suspending § 823.11(a) "insofar as it excludes from the requirements of part 823 those coal preparation plants, support facilities, and roads that are surface mining activities" see 50 FR 7278, Feb. 21, 1985.

**§ 823.12 Soil removal and stockpiling.**

(a) Prime farmland soils shall be removed from the areas to be disturbed before drilling, blasting, or mining.

(b) The minimum depth of soil and soil materials to be removed and stored for use in the reconstruction of prime farmland shall be sufficient to meet the requirements of § 823.14(b).

(c) Soil removal and stockpiling operations on prime farmland shall be conducted to—

(1) Separately remove the topsoil, or remove other suitable soil materials where such other soil materials will create a final soil having a greater productive capacity than that which exist prior to mining. If not utilized immediately, this material shall be placed in stockpiles separate from the spoil and all other excavated materials; and

(2) Separately remove the B or C soil horizon or other suitable soil material to provide the thickness of suitable soil required by § 823.14(b), except as approved by the regulatory authority where the B or C soil horizons would not otherwise be removed and where soil capabilities can be retained. If not utilized immediately, each horizon or other material shall be stockpiled separately from the spoil and all other excavated materials. Where combinations of such soil materials created by mixing have been shown to be equally or more favorable for plant growth than the B horizon, separate handling is not necessary.

(d) Stockpiles shall be placed within the permit area where they will not be disturbed or be subject to excessive erosion. If left in place for more than 30 days, stockpiles shall meet the requirements of § 816.22 or § 817.22 of this chapter.

[48 FR 21463, May 12, 1983, as amended at 53 FR 40839, Oct. 18, 1988]

**§ 823.14 Soil replacement.**

(a) Soil reconstruction specifications established by the U.S. Soil Conservation Service shall be based upon the standards of the National Cooperative Soil Survey and shall include, as a minimum, physical and chemical characteristics of reconstructed soils and soil descriptions containing soil-horizon depths, soil densities, soil pH, and other specifications such that reconstructed soils will have the capability of achieving levels of yield equal to, or higher than, those of nominated prime farmland in the surrounding area.

(b) The minimum depth of soil and substitute soil material to be reconstructed shall be 48 inches, or a lesser depth equal to the depth to a sub-surface horizon in the natural soil that inhibits or prevents root penetration, or a greater depth if determined necessary to restore the original soil productive capacity. Soil horizons shall be considered as inhibiting or preventing root penetration if their physical or chemical properties or water-supplying capacities cause them to restrict or prevent penetration by roots of plants common to the vicinity of the permit area and if these properties or capacities have little or no beneficial effect on soil productive capacity.

(c) The operator shall replace and re-grade the soil horizons or other root-zone material with proper compaction and uniform depth.

(d) The operator shall replace the B horizon, C horizon, or other suitable material specified in § 823.12(c)(2) to the thickness needed to meet the requirements of paragraph (b) of this section. In those areas where the B or C horizons were not removed but may have been compacted or otherwise damaged during the mining operation, the operator shall engage in deep tilling or other appropriate means to restore pre-mining capabilities.

(e) The operator shall replace the topsoil or other suitable soil materials specified in § 823.12(c)(1) as the final surface soil layer. This surface soil layer shall equal or exceed the thickness of the original surface soil layer, as determined by the soil survey.

[48 FR 21463, May 12, 1983, as amended at 53 FR 40839, Oct. 18, 1988]

**§ 823.15 Revegetation and restoration of soil productivity.**

(a) Following prime farmland soil replacement, the soil surface shall be stabilized with a vegetative cover or other means that effectively controls soil loss by wind and water erosion.

(b) Prime farmland soil productivity shall be restored in accordance with the following provisions:

(1) Measurement of soil productivity shall be initiated within 10 years after completion of soil replacement.

(2) Soil productivity shall be measured on a representative sample or on

all of the mined and reclaimed prime farmland area using the reference crop determined under paragraph (b)(6) of this section. A statistically valid sampling technique at a 90-percent or greater statistical confidence level shall be used as approved by the regulatory authority in consultation with the U.S. Soil Conservation Service.

(3) The measurement period for determining average annual crop production (yield) shall be a minimum of 3 crop years prior to release of the operator's performance bond.

(4) The level of management applied during the measurement period shall be the same as the level of management used on nonmined prime farmland in the surrounding area.

(5) Restoration of soil productivity shall be considered achieved when the average yield during the measurement period equals or exceeds the average yield of the reference crop established for the same period for nonmined soils of the same or similar texture or slope phase of the soil series in the surrounding area under equivalent management practices.

(6) The reference crop on which restoration of soil productivity is proven shall be selected from the crops most commonly produced on the surrounding prime farmland. Where row crops are the dominant crops grown on prime farmland in the area, the row crop requiring the greatest rooting depth shall be chosen as one of the reference crops.

(7) Reference crop yields for a given crop season are to be determined from—

(i) The current yield records of representative local farms in the surrounding area, with concurrence by the U.S. Soil Conservation Service; or

(ii) The average county yields recognized by the U.S. Department of Agriculture, which have been adjusted by the U.S. Soil Conservation Service for local yield variation within the county that is associated with differences between nonmined prime farmland soil and all other soils that produce the reference crop.

(8) Under either procedure in paragraph (b)(7) of this section, the average reference crop yield may be adjusted,

with the concurrence of the U.S. Soil Conservation Service, for—

(i) Disease, pest, and weather-induced seasonal variations; or

(ii) Differences in specific management practices where the overall management practices of the crops being compared are equivalent.

## **PART 824—SPECIAL PERMANENT PROGRAM PERFORMANCE STANDARDS—MOUNTAINTOP REMOVAL**

Sec.

824.1 Scope.

824.2 Objectives.

824.11 Mountaintop removal: Performance standards.

AUTHORITY: Secs. 102, 201, 501, 503, 504, 506, 508, 510, 515, 517, 701 Pub. L. 95-87, 91 Stat. 448, 449, 467, 470, 471, 474, 478, 480, 486, 498, 516 (30 U.S.C. 1202, 1211, 1251, 1253, 1254, 1256, 1258, 1260, 1265, 1267, 1291).

### **§824.1 Scope.**

This part sets forth special environmental protection performance, reclamation, and design standards for surface coal mining activities constituting mountaintop removal mining.

[44 FR 15452, Mar. 13, 1979]

### **§824.2 Objectives.**

The objectives of this part are to—

(a) Enhance coal recovery;

(b) Reclaim the land to equal or higher postmining use; and

(c) Protect and enhance environmental and other values protected under the Act and this chapter.

[44 FR 15452, Mar. 13, 1979]

### **§824.11 Mountaintop removal: Performance standards.**

(a) Under an approved regulatory program, surface coal mining activities may be conducted under a variance from the requirement of this subchapter for restoring affected areas to their approximate original contour, if—

(1) The regulatory authority grants the variance under a permit, in accordance with 30 CFR 785.14;

(2) The activities involve the mining of an entire coal seam running through the upper fraction of a mountain,

ridge, or hill, by removing all of the overburden and creating a level plateau or gently rolling contour with no highwalls remaining;

(3) An industrial, commercial, agricultural, residential, or public facility (including recreational facilities) use is proposed and approved for the affected land;

(4) The alternative land use requirements of §816.133(a) through (c) of this chapter are met;

(5) All applicable requirements of this subchapter and the regulatory program, other than the requirement to restore affected areas to their approximate original contour, are met;

(6) An outcrop barrier of sufficient width, consisting of the toe of the lowest coal seam, and its associated overburden, are retained to prevent slides and erosion, except that the regulatory authority may permit an exemption to the retention of the coal barrier requirement if the following conditions are satisfied:

(i) The proposed mine site was mined prior to May 3, 1978, and the toe of the lowest seam has been removed; or

(ii) A coal barrier adjacent to a head-of-hollow fill may be removed after the elevation of a head-of-hollow fill attains the elevation of the coal barrier if the head-of-hollow fill provides the stability otherwise ensured by the retention of a coal barrier;

(7) The final graded slopes on the mined area are less than 1v:5h, so as to create a level plateau or gently rolling configuration, and the outslopes of the plateau do not exceed 1v:2h except where engineering data substantiates, and the regulatory authority finds, in writing, and includes in the permit under 30 CFR 785.14, that a minimum static safety factor of 1.5 will be attained;

(8) The resulting level or gently rolling contour is graded to drain inward from the outslope, except at specified points where it drains over the outslope in stable and protected channels. The drainage shall not be through or over a valley or head-of-hollow fill.

(9) Natural watercourses below the lowest coal seam mined are not damaged;

(10) All waste and acid-forming or toxic-forming materials, including the